



W.Q. LIB
A10K44R.061

STANDARDS DEVELOPMENT BRANCH OMOE
36936000010618

THE ONTARIO WATER RESOURCES COMMISSION

REPORT ON

WATER POLLUTION SURVEY

of the

VILLAGE OF WESTPORT

UNITED COUNTIES OF LEEDS & GRENVILLE.

1967

TD
380
.W47
1967
MOE

PARLIAMENT BUILDINGS - TORONTO

VILLAGE OF WESTPORT - 1967
UNITED COUNTIES OF LEEDS &
GRENVILLE

Copyright Provisions and Restrictions on Copying:

This Ontario Ministry of the Environment work is protected by Crown copyright (unless otherwise indicated), which is held by the Queen's Printer for Ontario. It may be reproduced for non-commercial purposes if credit is given and Crown copyright is acknowledged.

It may not be reproduced, in all or in part, for any commercial purpose except under a licence from the Queen's Printer for Ontario.

For information on reproducing Government of Ontario works, please contact ServiceOntario Publications at copyright@ontario.ca

TD
380
.W47
1967

Report on water pollution
survey of the village of
Westport, united counties of
Leeds & Grenville.

80713

DISTRICT ENGINEERS BRANCH - FIELD INVESTIGATIONS

MUNICIPALITY - United Counties of Leeds & Grenville DATE - July 4, 1967.

Village of Westport

MATTER INVESTIGATED - Village of Westport - Water Pollution Survey

REPORT BY - W.C. Stevens, Technician AT REQUEST OF - Routine

DISTRIBUTION OF REPORT -

1. Mr. A. Rice,
Clerk-Treasurer,
Village of Westport,
Westport, Ontario. Division of Project Development
P.G. Cockburn, Director.
District File
Regional File
2. Dr. A.E. Thoms,
Medical Officer of Health
and Director,
Leeds & Grenville Health Unit,
70 Charles Street,
Brockville, Ontario.
3. Mr. W.A.G. Thurston, District Forester,
Department of Lands & Forests,
Provincial Government Building,
Kemptville, Ontario.
4. Mr. Alex Gray, Secretary-Treasurer,
Rideau Valley Conservation Authority,
Box 518, Kemptville, Ontario.
5. OWRC - Division of Sanitary Engineering
G.H. Kay, Supervisor, District Engineers Branch.
W.A. Steggles, Supervisor, Water Quality Surveys Branch.

No.	Date Prepared	Date Typed	Typed By	Date Approved	Date Mailed
	Sept. 28/67	Nov. 17/67	JN	Oct. 26/67	

REPORT

Ontario Water Resources Commission

Municipality Village of Westport, United Counties Date of Inspection July 4, 1967.
of Leeds and Grenville
Re: Water Pollution Survey
Field Inspection by W.C. Stevens, Technician Report by W.C. Stevens, CPHI(C)

INTRODUCTION

On July 4, 1967, a water pollution survey was performed in the Village of Westport. Surveys of this type are made by the Ontario Water Resources Commission for the purpose of locating and recording sources of existing and potential water pollution. Recommendations are made, when necessary, concerning the abatement of conditions which might adversely affect water quality.

Persons interviewed at the time of this investigation were: Mr. E.A. McGregor, Reeve, Village of Westport; Mr. E. Steele, Road Superintendent and Police Chief, Village of Westport; Mr. L.D. Hunter, Public Health Inspector, Leeds & Grenville Health Unit; and, Mr. C. Thompson, Ranger, Department of Lands and Forests. The assistance provided by these officials is greatly appreciated.

VILLAGE OF WESTPORT

General

The Village of Westport is located in the County of Leeds between Upper Rideau and Sand Lakes. The assessed population of Westport according to the 1967 Municipal Directory is 619 persons; however, transient traffic as a result of the tourist attraction to this lake area during the summer months substantially increases the population figure during this period.

Fishing, swimming and boating are popular summer sports in the area of Westport and the Village provides a main commercial outlet for boaters and cottagers in that area of the Rideau Lakes and Canal System.

Drainage

Sand Lake flows in an easterly direction into a large fish sanctuary which in turn flows into Upper Rideau Lake. Control dams are located at both ends of the fish pond and are utilized by the Department of Lands and Forests to control water levels in the pond. The Department of Lands and Forests who maintain a fish hatchery at Westport are particularly concerned about water pollution control in this area.

Drainage from the built-up area of the village is directed to the fish pond and to Upper Rideau Lake by means of municipal storm sewers and open ditches.

Water Supply

Ground water is utilized as the source of water supply in Westport. Private, drilled well supplies are in general use and the Leeds and Grenville Health Unit reported no serious supply or pollution problems at the time of this survey.

A flowing spring located near Upper Rideau Lake and labelled "The Best Water Supply in the World" is the only public water supply in the village. This spring is sampled regularly by the health unit and has continuously produced satisfactory water.

Sewage Disposal

In the absence of municipal sanitary sewers, sewage disposal is achieved on an individual basis. New septic tank systems

are installed under the supervision of the Leeds and Grenville Health Unit staff and only a few outdoor privies are in use. Periodic disposal problems have been encountered in the village areas where topsoil is limited and lot sizes are small. The subsurface method of sanitary waste disposal appeared to be generally satisfactory at the time of this inspection and no direct waste discharges to the receiving streams were encountered. However it was suspected that domestic wastes could gain access to the watercourse indirectly by such means as natural seepage and by unlocated private drains.

Refuse Disposal

Refuse from the village is removed for disposal at an open dump in the Township of Crosby, North. No water pollution problems were contemplated from the operation of this disposal site.

SAMPLING PROCEDURE AND SAMPLE RESULTS

Samples were collected from the lakes, two ward drain discharges to the pond and lakes, and from the Westport spring (public supply). The samples were submitted to the OWRC Laboratories for bacteriological examinations and chemical analyses.

The OWRC objectives for surface water quality are that the following concentrations are not exceeded:

Biochemical Oxygen Demand (BOD) - 4.0 ppm

Coliform Bacteria Count - 2400 per 100 ml

The appended sample results show excessive coliform bacteria counts in the discharges from the two ditches sampled. These counts indicate the presence of sanitary wastes. Increased coliform concentrations were also noted at the outlet from the fish pond and a further increase at the municipal bathing area. The BOD of the water

was within satisfactory limits. The reason for the high suspended solids content in sample number W-5 was not determined.

The results of samples from the Westport spring indicated the water was moderately hard, and was of acceptable chemical and bacteriological quality.

DEVELOPMENT OF MUNICIPAL WATER AND SEWAGE WORKS

The possible future development of future municipal water and sewage works was discussed with Mr. E.A. McGregor. Currently the three general methods of establishing these works are:

1. The municipality may enter into an agreement with the OWRC for the construction of the treatment and collector works with an obligation to pay the debt retirement and operating charges over the term of the agreement with the facilities reverting to the municipality at the end of the term of agreement.
2. The municipality may request the provision of service from a Provincially owned project. This programme allows the Commission to construct entire water and sewage works facilities for small municipalities. The associated cost of supplying these works, including amortization of capital costs, together with the operating and maintenance charges, will be recovered by the sale of the service to the affected municipalities by rates determined on an usage basis.
3. The municipality may proceed with the construction independently and meet capital costs by the sale of debentures.

Mr. McGregor was advised to contact the Division of Project Development of the Commission to obtain further information on the development of water and sewage works.

SUMMARY AND CONCLUSIONS

On July 4, 1967, a water pollution survey was performed in the Village of Westport. The utilization of private well supplies and subsurface sanitary waste disposal systems has generally proven satisfactory in the past; however, the municipality was prepared to give some consideration to the future establishment of municipal water and/or sewage works facilities. The results of samples collected showed some bacteriological degradation of the lake at Westport and at least two local drainage ditches had excessive coliform concentrations in the discharges.

RECOMMENDATION

The future water supply and sewage disposal requirements of the Village of Westport should be considered by municipal council.

Prepared by: W.C. Stevens,
W.C. Stevens,
Technician,
Div. of Sanitary Engineering.

WCS/jn

ONTARIO WATER RESOURCES COMMISSION
CHEMICAL LABORATORIES

All analyses except pH reported in
p.p.m. unless otherwise indicated

SEWAGE ANALYSIS

1 p.p.m. = 1 mgm. / litre
= 1 lb./100,000 Imp. Gals.

Municipality: Village of Westport Report to: W.C. Stevens

c.c. Chem. Lab.
W.Q. Surveys
H. Browne
General Manager

Source: Water Pollution Control Survey

Date Sampled: July 4/67 by: W.C. Stevens

Bacteriological Examination

Lab. No.	5-Day B.O.D.	Solids			NITROGEN				A S N.		MF	per 100 ML
		Total	Susp.	Diss.	Anionic Detergent free as ABS	Free ammonia	Total Kjeldahl	Nitrate	Nitrate	Nitrate	Coliform Bacteria	
8218 R14732	1.1	232	2	230	0.0	**	0.65	0.00	0.12		5200	
8219 R14733	0.9	170	2	168	0.0	**	0.65	0.00	**		2200	
8220 R14734	0.4	144	1	143	0.0	**	0.58	0.00	**		40	
8221 R14736	3.6	524	74	450	0.0	0.49	0.91	0.17	1.35		104,000	
R14735	-	-	-	-	-	-	-	-	-	-	-	10,000
					**	Sample is exhausted.						

8219 R14732	W-1	Upper Rideau Lake - At Municipal Bathing Area.										
8219 R14733	W-2	Outlet from L & F. Fish Pond to Upper Rideau Lake.										
8220 R14734	W-3	Sand Lake at bridge above Fish Pond.										
8221 R14736	W-5	Ward Drain to Upper Rideau Lake at S.E. Side of Westport.										
R14735	W-6	Ward Drain to South Side of Fish Pond.										

ONTARIO WATER RESOURCES COMMISSION
CHEMICAL LABORATORIES

WATER ANALYSIS

All analyses except pH reported in
p.p.m. unless otherwise indicated

1 p.p.m. = 1 mgm. / litre
= 1 lb./100,000 Imp. Gals.

Municipality: **Village of Westport**

Report to: **W.C. Stevens***

c.c. Chem. Lab.*
A. Redekopp
Gen. Manager*

Source: **Water Pollution Survey**

Date Sampled: **July 4/67**

by: **W.C. Stevens**

Bacteriological Examination

Lab. No.	Hardness as CaCO ₃	Alkalinity as CaCO ₃	Iron as Fe	Chloride as Cl	pH at Lab.	Fluoride as F	Apparent Colour Units	Turbidity Units	Anionic Detergents as ABS	Coliform Bacteria per 100 ml.
W5387	126	249	0.21	32	7.3	Trace*			0.0	0
N I T R O G E N A S N										
						Free Ammonia	Total Kjeldahl	Nitrate	Nitrate	
W5387						0.06	0.33	0.00	3.2	
						Trace*	- Less than 0.1 ppm.			

W5387 W-6 Westport - Spring